

Full Length Research Paper

Non governmental organizations (NGOs) and beneficiary participation in agricultural development projects

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The purpose of this paper was to evaluate the impact of the Non Governmental Organisations (NGOs) and beneficiary farmer participation in the establishment of agricultural development projects. This study evaluated two districts in different ecological regions for easy comparison. The study also considered the performance of irrigation and livestock projects that have been implemented differently, that is, involving farmer participation and top-down approach. Participatory cattle projects performed badly and in some instances the projects were a total failure. The early withdrawal of the NGOs after project implementation coupled with lack of technical support by the governmental departments responsible for agricultural and rural development helped in aiding the failure and poor performance. Since beneficiary participation usually takes place as an integral part of the social analysis, through a social assessment process, NGOs should be a part of the development project's development phases to reinforce its takeoff and sustainability. The vision of the society that the NGOs have at the planning and implementation of a project should be sustained and supported through the processes of monitoring and evaluation. NGOs should bear the accountability, not only of funds but of all activities throughout the phases of the project while gaining support from other stakeholders.

Key words: Participatory, projects, non-governmental organisations, beneficiary participation.

INTRODUCTION

Many approaches to agricultural extension and project implementation have been applied with the intention of bringing about economic development in the rural sector. In Zimbabwe, such conventional approaches as, the Master Farmer Training Scheme (MFT) coined in the 1930s (Kramer, 1997; Hanyani-Mlambo, 2002), Group Development Area Approach (GDA) of the 1970s, the Radio Listening Group approach (RLG) tried in Chimanda and Nswazi communal areas, the Training and Visit System (T&V system), the Farming Systems Research and Extension (FSRE) (Mettrick, 1993) and the Commodity Based Approach were used sequentially, but proved ineffective or unsatisfactory (Hanyani-Mlambo, 2002). Despite the injection of many resources (including money) into research and development projects, most of the rural areas have remained poor (Marumisa, 1997).

Research, poor extension and policy making have been blamed for poor project performance, lack of innovation adoption in rural communities (Pembere, 1996) and the lack of project sustainability.

Farmers resist technology probably because it is not compatible with their objectives, resources or environment, not because of their backwardness, irrationality or management mistakes (Franzel and Houten, 1992). Research is designed and conducted under controlled conditions on research stations which more often are different from environmental situations surrounding the farmers. According to Franzel and Houten (1992), nothing can be gained by reorganising farmers' existing activities, because they already manage their arable land efficiently. Instead, researchers should focus on introducing new technologies to farmers, taking

cognizance of the conditions surrounding them which may hamper effective adoption.

The biggest barrier to all learning is that many Agricultural Extension Workers (AEWs) do not believe that the farmers are capable without their aid (Rogers, 1992). AEWs have been taught about better farming systems, new varieties with hybrid vigour and improved livestock breeds, but then the knowledge of motivating farmers to adopt technology has up to now not been emphasised significantly (Siziba, 1996). Knowledge cannot be transferred and learning is always an act of self-search and discovery, one may be stimulated and assisted, but can not be taught (Rogers, 1992). The work of the AEW is not on passing on knowledge, but helping farmers to discover for themselves, to help them create their own knowledge. In far too many countries, research workers decide for themselves what topics deserve their attention without regard of the problems facing their cousins farming the land (Cernea et al., 1983). The organisational forms have been imported from other countries without being adapted to the cultural norms of the community to be served, or without consideration of the available capital resources (Arnon, 1989).

The conventional agricultural type of extension has been associated with the problem of poor management taking the form of poor communication between field staff and headquarters and vice-versa, lack of support and supervision of field staff and the absence of detailed realistic plan of work (Adams, 1982). This leaves the AEWs with the problem of deciding on what to emphasize and what not to emphasize.

The problem of poor communication within the system is worsened by the downward decisions carried out by agents who do not have discretion to adjust the programs to the specific socio-economic and ecological conditions in the areas under their jurisdiction (Arnon, 1989). This is worsened by routine, ritual, unusable, unused and unread reports. Education gap compounds the problem, where the staff at headquarters is a professional specialists with university graduate teams operating from well built offices with well laid-out plans, while the AEWs do not receive enough training, do not know what is expected of them and without means of transport (Arnon, 1989). In Zimbabwe, these problems are worsened by the reduction of the number of formal training years for the AEWs from three years to one year, which is aimed at meeting the demand for extension resulting from the increased number of resettled farmers.

Extension based on transfer of information is a waste of time and tends to destroy the indigenous learning systems (Rogers, 1992). Self-search on the part of the beneficiary farmers is necessary and the relevance of the promoted technology evaluated by the farmers under his own conditions. Most farmers are both experimental and sceptical. They will not adopt a practice until they have either experimented with it in their own system or have seen it perform in a system almost like theirs (Mc

Dermott, 1987). Where central government programs and outside assistance attempt to introduce changes in traditional technologies, extension offers the possibility of adapting the technology to the rural producers' needs so that its benefits can be recognized and the change adopted (Cernea et al., 1983). To facilitate the adoption, farmers need to be involved rather than being passive recipients of new technology.

Agricultural extension workers generally, have numerous roles to play including enforcement of regulations, planning, organizing and coordination, in addition to preparations for demonstration plots and involvement in on-farm trials. These roles and their diversity result in extension in most developing countries having badly designed and inappropriate programmes (Arnon, 1989). The ultimate result is absence of systematic ordering of priorities between competing demands of different programs on field staff. Unrealistic target setting is another problem, where the junior field staff is not involved in setting the targets. Lack of systematic work planning for field staff thwarts the purposes for which extension is aimed at achieving, that is, transfer of agricultural technical information to the end users, who are the farmers.

Trials carried out in communities through projects run by outsiders are frequently plagued by problems of mismanagement and theft. This is usually linked to the fact that the community does not feel any responsibility for the activity and regards it as a temporary benefit to be exploited for as much as possible while it lasts. On the contrary, it is believed that any activity generated through farmer participation will usually be managed by the community and the benefits will be clear to them. Non-Governmental Organisations (NGOs) achieve sustainability where the lessons, impacts and benefits of development interventions continue to be disseminated and diffused after their completion (Michael, 2004).

The sustainability of the projects implemented should stretch beyond the NGO's ability to provide the financial support which is often dominant in the field, although steady funding arrangements are essential. Although, NGOs are transmitters of sustainability, active farmer participation (and involvement) in project implementation and development is used by many NGOs in order to ensure that the development programs are relevant to the farmers' needs. This is believed to enhance project sustainability and a balanced development of the rural areas (Pickering, 1987).

Participatory development's broad aim is to involve the socially and economically marginalised farmers' in decision-making over their own lives (Guijt and Shah, 1998). Use of participation and proper involvement of beneficiaries assures the planners of sustainable development; as it is assumed that they are responding to a real need among local people, whether it is for increased income or the intensive use and management of resources. Farmer participation increases their motivation

and level of mobilisation in support of the project or program (Townshley, 1996). This leads to the attainment of an appropriate level of benefits for an extended period of time after major financial, managerial, and technical assistance from an external donor is terminated.

Participation of local development workers (NGOs, government and other agencies) in Participatory Rural Appraisal (PRA) can greatly improve the efficiency of development work and eliminate many of the problems regarding proprietorship and development activities at community level (Townshley, 1996).

The planning of large activities such as irrigation and livestock development projects requires a high degree of commitment on the part of women and men from the villages, and the sustainability of benefits beyond the life of the project depends upon continued management of local resources and access to external capital and state development programs through village-based groups (e.g. irrigation groups, credit management groups). Projects should have a fairly high (or deep) level of participation that is, aiming for an intensive relationship with farmers at the early stages in decision making (Biggs, 1989; Farrington et al., 1993). The intensive relationship with farmers promotes the sense of belonging on the part of the beneficiaries.

However, there are several disadvantages associated with participatory research, project identification and implementation. Interactive participatory approach has a problem of raising expectations within the communities which frequently cannot be realised given the institutional or political context of the area (Townshley, 1996). The high expectations are a result of genuine feelings raised by the analysis of many areas of local life (Cornwall and Pratt, 2003). The problem prioritisation is generally accepted as a priority of expectations.

Linked to the problem of raised expectations, is the danger of drafting development plans which the participatory agencies cannot address (Townshley, 1996), especially in the technical sense, thus disappointing the already raised expectations. The facilitating organisation must do its best to support, if requested to do so, the actions that local people have decided on.

The poor are only experts in surviving under their specific circumstances, but they know as little about all the mechanisms surrounding poverty as the next person (Cornwall and Pratt, 2003). Thus, the rural people have the right of choice and self-determination, but are not experts.

The participatory approach uses aggregate participation (Cornwall and Pratt, 2003). It is a public event, open-ended and fails to represent every person in the community. Questions such as, who defines what and whose words are important, are not taken cognizance of. The use of the term 'community' in PRA discourses makes it appear as if 'communities' are homogenous, static and harmonious units within which people share common interest and needs (Guijt and Shah, 1998). The

notion of 'community' conceals power relations within 'communities' and further masks biases in interests and needs based on, e.g. age, class, caste, ethnicity, religion and gender. Stratification of communities based whether on wealth, social status, gender or ethnic group is usually obscured or ignored (Townshley, 1996), yet this may negatively affect the outcomes of the development interventions and programs. Most if not all agricultural development projects use common resources (such as water and land) and the projects are channelled for the benefit of the 'community'.

The rural poor participate in generating the information, which is then owned by scholars and researchers with little credit going to those who generated the information (Cornwall and Pratt, 2003). The people's knowledge is also used to advance and legitimize the project's own development agenda, or even to negotiate its participatory approach with other stakeholders such as funders, technical consultants and senior management (Pottier, 1992).

There is a danger of distortion of "participation" versus the opportunity to advocate for change among the powerful (Cornwall and Pratt, 2003). By devolving decision-making responsibility to communities and leaving the identification and planning of activities to them, there is a real risk that particular elements in communities, especially the more educated, the wealthiest and those with authority may find it easier to "capture" the activity and monopolize its benefits (Townshley, 1996). Poor people in the community may support "community" decisions which will not benefit them at all, because they are supported by their wealthier and more influential patrons. Agricultural projects are more prone to monopoly as they are often proposed as a means of making better use of "common" land or water areas.

The prioritisation of problems can be influenced by the PRA team, emanating from the inclinations of the outsiders (Cornwall and Pratt, 2003). The project actors are not passive facilitators of local knowledge production and planning. While the facilitators own the research tools, choose topics, record the information and summarize according to project criteria of relevance, they also shape and direct the processes. According to Pottier (1992), "People's knowledge" is undoubtedly a powerful normative construct that serves to conceal the complex nature of information production in "participatory" planning, especially the role of outsiders. The fieldworkers develop their own operational interpretation of both villager needs and project goals, and their own strategies of intervention, which are sensitive to the managerial and institutional environment as well as the village context in which they work (Pottier, 1992).

It is often not exactly clear who is to be empowered, the individual, the "community" or categories such as "women", "the poor" or the "socially excluded" (Cleaver, 1998). The "community" in the participatory approaches to development is often seen as a "natural" social entity

Table 1. Schematic distribution of the sample size.

Project type	Participatory approach	Conventional approach	Total
Irrigation	30	30	60
Livestock	30	30	60
Total	60	60	120

Table 2. Actual sample distribution according to district and project type.

Project type	Beitbridge district	Mberengwa district	Total
Participatory irrigation	7	23	30
Conventional irrigation	15	15	30
Participatory livestock	14	16	30
Conventional livestock	12	18	30
Total	48	72	120

characterised by solidarity relations. The assumptions that these can be represented and channelled in simple organizational forms are unsatisfactory as there is considerable evidence of overlapping, shifting and subjective nature of communities and the permeability of boundaries. Such issues include the little reflection on the wealth of farmers and the overlapping interactions between extended family (rural and urban) which is a common phenomenon in most rural setups (Cleaver, 1998).

In the light of the fore-going discussions, this study sought to evaluate the performance of participatory irrigation and cattle projects against the performance of those that have been implemented through the top-down approach. The implemented participatory projects (both irrigation and cattle) had not been evaluated as to whether they perform better than the conventionally implemented ones. This is an important study since it has a potential to make recommendations that can inform development agencies on the proper approach to establishing sustainable agricultural development projects.

MODEL SPECIFICATIONS

It is important to note that the quantity and quality of external interventions is a function of farmers' characteristics among which are farmers' age, education, farm size, and infrastructure (Hussain et al., 1994; Adesina and Baidu-Forson, 1995; Nkonya et al., 2008; D'Souza et al., 1993). These characteristics are assumed to determine the demand for external advice or intervention (Hussain et al., 1994). Though the analysis of all these possible influences on productivity is a complex task, this study managed, however, to analyse the determinants of adoption of recommended practices and technology for cattle projects and irrigation schemes, performance of cattle projects, household income and irrigation performance at plot level, where a plot is the piece of land under irrigation that has been allocated to a single household. It is important to note that this study took a comparative approach, that is, participatory versus conventionally implemented cattle and irrigation projects. A sample of 120 beneficiaries from Mberengwa

and Beitbridge districts of Zimbabwe was used for the purposes of this study. Mberengwa and Beitbridge are two of the 5 beneficiary districts that benefitted from the Small Dry Areas Resource Management Programme (SDARMP). The two districts were chosen to represent the different provinces within which they lie, with Beitbridge falling under Matabeleland South and Mberengwa under the Midlands province. The sample composed of 30 participatory irrigation farmers, 30 conventional irrigation farmers, 30 participatory cattle farmers and 30 conventional cattle project farmers (Table 1). The sample was drawn from projects implemented within the last 5 years and the evaluation of the performance of all project types was done for the period of five consecutive years. It is important however to note that the different project types had different NGOs responsible for their implementation. The participatory beneficiaries fell under the same NGO.

Due to the differences in the number of irrigation and cattle projects and the number of beneficiaries between the districts, the sample for this study was not evenly distributed across the districts under consideration. The actual sample from either district was varied for this study as presented in Table 2. As an example, there was one participatory irrigation scheme in Beitbridge district affecting the sample size obtained from the respective district. However, there was an equal sample for the conventional irrigation projects from both districts, because of the many numbers of such projects within each district. Depending on the number of beneficiaries within each sampled project, this study strove to get a 10% sample size so as to make it as representative as possible.

A researcher-administered questionnaire was used for the collection of the household data. Four focus group interviews were conducted at project level. The questionnaire had 5 sections. Section 1 was designed to explore the participant's demographic data including such issues as sex, marital status and family size. Section 2 was basically about the respondents' awareness of extension services. Choice and checklist questions were asked. The third section focused on the exploration of the farmers' personal experience in chosen projects entailing the implementation of the project and its performance and level of production. The fourth section dealt with the farmers' income from the project and the resultant investments. The fifth and last section involved a ranked response that sought to rate the participants' satisfaction with their experience. Facts were also extracted on the attitude of farmers towards agricultural extension and the evaluation of the socio-economic impact of the two agricultural projects implementation approaches, whether they have had a positive or

Table 3. Variable description.

Variable	Description	Code used
Gender	Sex of the household head	SEX
Access to extension	Dummy variable = 1 if farmer has access to extension advice	FKNOW
Number of cattle	Number of cattle issued at onset of livestock projects, Actual numbers	CATTLE
Age	The age of the house hold head	AGE
Farming experience	Number of years in farming	EXPER
Family size	Total number of household members	FSIZE
Arable land size	The size of the arable land or plot size in the case of irrigation farmers	PSIZE
Farmers' education level	Level of education attained by the farmer: Illiterate, primary school level, secondary school or tertiary level	EDU
Access to credit	Dummy variable, 1 if farmer has access to credit, or else, 0	CREDIT
Use of certified seed	Binary variable for farmer's use of certified seed (Y/ N)	CERTSEED
Use of fertilizer	Binary variable for use of inorganic fertilizer (Y/ N)	FERTUSE
Use of pesticides	Binary variable for the use of pesticides (Yes/ No)	PESTCIDE
Land tenure	Plot tenure, 1 if it is farmer's only arable land	POPERAT
Dehorning of livestock	Dummy variable, 1 if farmer practice dosing, or else, 0	DEHORN
Castration of livestock	Dummy variable, 1 if farmer practices castration, or else, 0	CASTRATE
Vaccination of livestock	Dummy variable, 1 if farmer practices vaccination, or else, 0	VACCINE
Weaning of calves	Dummy variable, 1 if farmer practices weaning, or else, 0	WEAN
Dosing of livestock	Dummy variable, 1 if farmer practices dosing, or else, 0	DOSE
Crops grown in irrigation schemes	The type of crop grown in the irrigation scheme; 1 if wheat, 2 if vegetables, 3 if maize grain and 4 if sugar bean	ENTERPRISE
District wherein project falls	DISTRICT is district where the projects fall, BB if in Beitbridge and MBER if in Mberengwa	DISTRICT
Approach to project implementation	APPROACH is the approach used for implementing the project, CONV for conventional and PARTIC for participatory	APPOACH

negative impact. The "yes" or "no" answer questions and the accompanying option for comments on the answer given was intended to explore the respondents' views towards approaches to agricultural project implementation. This allowed respondents freedom to offer their opinions. This was permitted so that the answers given could be analysed for recurring themes (Coolican, 2009). The questions drafted for the Focus Group Interviews sought to gather information on the following; the kind of project engaged in, level of external support (government, donor, NGOs), current problems faced in the project and coping mechanisms, level of technical support from extension staff. The interview also sought to establish the extent to which external organizations have influenced the thriving and survival of the project, the importance of development authorities to consult beneficiaries for choice of projects, the role of farmer participation in decision-making, the need to promote such projects in the community and ways of making the projects competitive and effective. The data collected through interviews was meant to substantiate the questionnaire.

The logistic regression model used for data analysis explains one or more dependent categorical variables. The variables used for this model were based on previous studies (Hussain et al, 1994; Adesina and Baidu-Forson, 1995; Nkonya et al., 2008; D'Souza et al., 1993) and additional variables drafted according to the needs of the research findings such as the approach used for project implementation. The detailed list of these variables is shown in Table 3. The following equation represents the logistic regression

model:

$$\gamma = b_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n$$

where γ = the dependent variable. This study had three different dependant variables, namely, success of cattle projects, adoption of improved technology and irrigation project income. X_n = the independent variables (e.g. sex, level of education, age), b_0 = constant, β_n = is the odds ratio corresponding to a one unit change in the independent variables.

The model was used to evaluate the following:

- (1) The determinants of the success of the cattle projects
- (2) The determinants of adoption of improved technology as recommended by agricultural extension services.
- (3) The determinants of irrigation project income

Table 3 describes the variables used in the logistic regression model for data analysis.

RESULTS AND DISCUSSION

Focus group interviews revealed that the delegation of particular and specific governmental departments to take

Table 4. Parameter estimates of the logistic regression for the cattle project performance.

Variable	Parameter estimate	Standard error	Wald Chi-square	P > Chi-square
Intercept	-3.0209	0.0501	21.43	<.0001
Access to credit	0.7691	0.2775	7.68	0.0056*
Number of cattle	0	0.2582	0.0000	1.0000
Weaning of calves	0.8473	0.2817	9.0457	0.0026*
Vaccination of livestock	-0.0667	0.2583	0.0666	0.7964
Castration of livestock	0.6190	0.2707	5.2300	0.0222*
Approach (conventional)	-1.6093	0.3464	21.5838	<.0001*
District Beitbridge	-0.5465	0.2679	4.1617	0.0413*
Land tenure	1.2424	0.3545	12.2812	0.0005*
Access to extension	0.947	0.361	6.870	0.009*
Dose	0.8370	0.3545	5.5734	0.0182*
Dehorning of livestock	0.0099	0.3642	0.000	0.978

*, 5% significance level.

full responsibility for the participatory cattle projects was not clearly spelt out when the donor withdrew, and also the departments were averse to provide their services.

This was made even worse by the fact that the livestock extension services and support were available through the Agricultural Research and Extension (AREX), Veterinary Services (VET) and the Livestock Development and Production departments who had similar if not duplicate roles. Focus Group Interviews also revealed that the monitoring of the participatory cattle projects was not clear and the donor did not re-visit the implemented projects. Consequently, many heifers that died were not replaced though such a facility was made provision for during implementation, through availability of drugs procured through farmer contributions.

Interviews with the beneficiaries revealed that the Hereford from an intensive production system was the predominant breed given to the beneficiaries. The majority of the beasts failed to abruptly adjust to the extensive production system characterised by poor grazing. Interaction with farmers revealed that some were found dead in the grazing areas while some died after indications of acute sickness.

Interviews conducted during this study also unveiled that some farmers who already owned cattle prior to the implementation of the project, also benefited from the participatory projects, despite the scheme being targeted for those who did not own cattle. These happened to be influential people (or their close relatives) who were also co-opted into project leadership.

The involvement of farmers who already owned cattle prior to benefiting from the cattle projects confirmed Townsley's (1996) notion that the more participatory development issues are, the more subject to abuse they become. Contrariwise, both the conventionally and participatory implemented irrigation projects (schemes) had a fulltime Extension Agent employed by the AREX department to provide technical support to the

beneficiaries.

Determinants of the success of the cattle development projects

The results of the test of significance of the determinants of the success of the cattle projects examined in this study are shown in Table 4. Credit, calf weaning, conventional approach, access to extension services and district, were found to be significant at the 5% probability level. It is likely that the use of credit boosts the funding of drug procurement and weaning also shortens the time between two calving periods. The reason for the better performance of cattle associated with Beitbridge (Pr = 0.0413) than in Mberengwa district can be attributed to the grazing (veld) pasture which is predominantly sweet veld and is highly nutritious for the grazers.

The determinants of the irrigation project income at plot level

District, conventional approach, family size, arable field size, plot size, and wheat enterprise are highly significant (95% confidence level) determinants of higher income from the irrigation projects (Table 5). Higher irrigation income was associated with conventional approach which coincidentally relates to the large plot sizes in these projects as was proven during interviews with farmer beneficiaries and records from the department of AREX. Large household sizes are most likely to contribute better labour force leading to higher yields and the resultant high income levels. Most smallholder farmers do not attach cost to labour provided by family members and thus this aspect is rarely considered as a cost.

More irrigation project incomes are associated with

Table 5. Determinants of irrigation project income at plot level.

Variable	Parameter estimate	Standard error	F value	P > F
Intercept	-13009	10501	81.34	<.0001
District wherein project falls	-69676	10072	47.85	<.0001*
Approach (conventional)	59628	10567	31.84	<.0001*
Arable land size	201382	64717	9.68	0.0029*
Farmers' education level	-13007	1946.12	44.67	<.0001*
Use of certified seed	36.57	10.06	13.21	0.0006*
Use of pesticides	-11.38	6.53	3.04	0.0869
Access to extension	-10.91	6.35	2.95	0.0915
Access to credit	28.58	8.50	11.30	0.0014*
Use of certified seed	130.89	22.36	34.25	<.0001*
Age	-586.99	317.88	-1.85	0.0699
Family size	25649	6449.91	3.98	0.0002*
Land tenure	-69627	1611.66	84.34	<.0001*

*, Significance at 5% level.

Table 6. Adoption of technical practices in livestock projects.

Variable	Dose	Dehorn	Vaccine	Wean	Castrate
Intercept	0.0005	<0.0001	0.879	-12.70	0.0001
Age	0.471	1.260	2.78	0.020*	1.184
Farmers' education level	<0.0001*	0.834	0.001*	0.22	3.62
Gender	-0.07	0.0001*	0.89	0.493	0.008*
Approach	0.015*	0.958	0.04*	<0.0001*	0.0253
Farming experience	<0.0001*	0.286	<0.0001*	0.01*	1.121
Access to extension	0.0001*	0.006*	0.582	<.0001*	0.488

*, Significance at 5% level.

Mberengwa district than Beitbridge. This scenario might be attributed to the fact that Mberengwa has a greater portion of Natural Region IV which might favour better crop production than Beitbridge which is predominantly Natural Region V, which is suitable for extensive livestock production and game reserves. This suggests that the proceeds from the irrigation schemes in Beitbridge might be used to supplement the harvest from the dry-land productions

Logistic regression results for the adoption of recommended practices in cattle projects

Dosing, vaccination and weaning were significantly associated (5% significance level) with the approach of agricultural project implementation as well as the farmer's experience (Table 6). Vaccination and dosing of the cattle were highly associated with the level of education of the farmer.

Logistic regression results for the adoption of recommended practices in irrigation projects

Table 7 shows the results of the test of significance of the

determinants of the adoption of recommended practices in irrigation projects. Record keeping was highly associated with farmers with larger arable lands and projects implemented the conventional way. This can be attributed to the diversity of the production activities faced by the farmers with large fields which calls for the need to account for proper allocation of resources. Certified seed use was associated with the farmers' accessibility to farming knowledge from the AEWs.

CONCLUSION AND RECOMMENDATIONS

While access to and availability of resources and/or inputs is essential for better project performance, there is need to look beyond such provisions. Multiple factors usually work together against the performance of the projects. Unavailability of needed resources cannot be singled out as a cause of non-adoption of the practices and failure of agricultural projects. Donors thus need to focus beyond resource provision. The donor organisations should not withdraw from the farmer clientele too early after project implementation. Time should be spent in understanding issues that affect participation of the poor farmers in specific development projects in a

Table 7. Logistic regression results for the adoption of recommended practices in irrigation projects.

Variable	Certified seed use	Fertilizer use	Pesticide use	Record keeping
Intercept	0.0005	0.6711	0.72	<0.0001
Access to extension	0.0182*	0.0830**	0.0463*	0.0463*
Farming experience	0.12	0.59	0.160	0.136
Arable land size	0.063	0.36	0.36	0.0001*
Gender	0.5521	0.5521	0.9778	0.2538
Age	0.5633	0.5633	0.8782	0.0092*
Farmers' education level	0.523	0.1019**	0.4455	0.3938
Approach (conventional)	0.7386	0.7386	0.4257	<.0001*

*Significance at 5%; **Significance 10% level.

community, analysing how the project has taken off, how it fares, challenges, and opportunities that can be mobilised for the benefit of the rural poor. Based on the findings of this study, there is need to consider the breed of cattle allocated to the cattle project beneficiaries, to affirm its suitability to the prevailing conditions of the new area.

Lack of full commitment and technical support from the governmental departments responsible for development within these areas proved that beneficiary participation in project implementation is not adequate for better project performance without other support services. These may include farmer training. Though, the beneficiary participation focuses on empowering the local people, project implementation needs to go deeper than the supply of funding, and consider the technical aspects among other factors. The donors should make a follow-up of the interventions made in support of development projects as a part of ensuring sustainable development and effective use of resources dispatched for development purposes. Otherwise, the intervention is meaningless if the end result is not upheld and ensured.

All stakeholders involved in participatory project implementation should delegate the responsibilities to government departments to help farmer beneficiaries towards sustainable projects, especially the livestock. After passing on the heifers to the participatory beneficiaries, arrangements should be made in most cases on which department will have an upper hand in the running of the projects. Though, AREX, VET and Livestock Development and Production departments have overlapping if not duplicate roles towards livestock production, arrangements should be made as to which ones would seriously commit themselves to the farmers' rescue.

Donor intervention in project implementation does not necessarily reduce the role of the public sector, but facilitates and allows better priority setting and ease achievement of goals set for community development. The donors provide financial support and thus the local government and other government structures should take over on management as they will still remain within the

community promoting development after the withdrawal of the financiers. Development projects are meant to benefit the community which is served by the Extension Agents and should not be associated with the donor agency as the proceeds will not benefit the sponsors, but the rural poor.

Stakeholders such as governmental departments responsible for development activities within the communities (e.g. AREX, Veterinary Services, etc) can be used to advantage in the selection of beneficiaries as they have representative staff that are in constant contact with the local community and are well-versed with the people within their areas of operation. However, it should be part of the external development agents to ensure equity and fairness in benefits.

Local project group leadership should be set so as to have a clear cut link with top management to coordinate the smooth running of the projects. The small group leadership set by the external agencies should complement the already existing institutional organisations so as to create an environment of participation thereby eliminating hindrances to development. Occasional and regular meetings with the project beneficiaries should be promoted so as to curb problems at their budding stage. This improves communication which the participatory approach is trying to perk up, through promotion of farmer involvement.

Other resources permitting the participatory approaches to irrigation project implementation should take into account the size of plots for each beneficiary farmer as this also has a bearing on the production levels and the resultant incomes from the enterprises. The adoption of technical practices recommended for high production levels proved that the accessibility of extension workers, despite the approach used for project implementation, is of paramount importance. Farmers need technical back-up and continued support with their project production activities regardless of the approach used for project implementation. It may be beneficial to evaluate similar projects implemented by different NGOs so as to cater for different treatments and services given by the different NGOs.

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